 32.(new) The process of claim 31 wherein the step of permeating is performed at a flux of less than 40 Liters per square meter per hour based on the surface area of the outside of the filtering membranes.


REMARKS

This application is a National Phase Entry of a PCT application (PCT/CA00/01354) which is related to pending U.S. application serial no. 09/565,032. Claims 1 - 20 of this application are cancelled because they are very similar to claims being prosecuted in application serial no. 09/565,032. The new claims submitted with this preliminary amendment relate to other matter disclosed in these applications. To the extent that the new claims differ from original claims 1 - 20, they are supported in the application at page 3, line 26 to page 4, line 14, page 5, lines 16 - 24 and page 8, lines 11 - 26.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

Respectfully submitted,

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By 

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

Please cancel claims 1 -20 without prejudice.

Please add new claims 21 - 32 as follows.

- 21.(new) A filtering reactor comprising,
a) a tank open to the atmosphere;
b) one or more modules of suction driven filtering membranes in the tank for withdrawing a filtered permeate;
c) an inlet to add feed water to the tank; and,
d) a retentate outlet to discharge water containing retained solids from the tank from above the one or more modules;
wherein
e) the one or more modules may be backwashed with a liquid comprising permeate;
f) the one or more modules have a surface area of at least 500 square meters for every square meter of horizontal cross-sectional area of the tank; and,
22. (new) The reactor of claim 21 wherein the one or more modules cover more than 90% of the horizontal cross-sectional area of the tank.
23. (new) The reactor of claim 21 wherein
g) the one or more modules are divided into elements, each element having a pair of opposed headers; and,
h) the elements are separated from each other by impervious plates; and,
i) channels are provided for water to flow vertically through the elements.
- 24.(new) The reactor of claim 23 wherein the elements have hollow fiber membranes oriented generally horizontally.
25. (new) The reactor of claim 21 wherein the inlet is located to add feed water to the tank from below the one or more modules.
26. (new) The reactor of claim 21 having aerators in the tank below the one or more modules.
27. (new) A process for filtering water comprising the steps of,

- a) providing a filtering reactor as in any of claims 21 through 26; and,
- b) in repeated cycles,
 - (i) permeating filtered water while adding a sufficient volume of feed water to the tank to keep the membranes submerged; and
 - (ii) performing a deconcentration step further comprising at least one or both of (A) providing a flow of feed water into the tank from below the modules or (B) backwashing the one or more membrane modules with a liquid comprising permeate, wherein excess water containing retained solids flows out of the retentate outlet.

28. (new) The process of claim 27 wherein the step of permeating is performed at a flux of less than 60 Liters per square meter per hour based on the surface area of the outside of the filtering membranes.

29. (new) The process of claim 28 wherein the step of permeating is performed at a flux of less than 40 Liters per square meter per hour based on the surface area of the outside of the filtering membranes.

30. (new) The process of claim 27 wherein permeation is stopped during the deconcentration step and the one or more modules are aerated while permeation is stopped during the deconcentration step.

31. (new) The process of claim 30 wherein the step of permeating is performed at a flux of less than 60 Liters per square meter per hour based on the surface area of the outside of the filtering membranes.

32.(new) The process of claim 31 wherein the step of permeating is performed at a flux of less than 40 Liters per square meter per hour based on the surface area of the outside of the filtering membranes.